HANDOUT

To: Members, Water Use Efficiency Subcommittee From: Eric Poncelet and Bennett Brooks, CONCUR, Inc.

Date: May 12, 2003

Re: Update: WUE Science Review Panel

Attached please find a table summarizing the current list of candidate names for the Water Use Efficiency Science Review Panel.

As you know, the list of candidate names has been developed based on suggestions from WUE Subcommittee members, CALFED Program Managers, the CALFED Science Program, and others. The list is broken into two sections. The first section, organized by panelist category, includes the names of individuals considered to be the strongest potential candidates at this time. This list is not prioritized among individual candidates. The second list includes other individuals nominated for the Panel but not currently recommended to be considered for the Panel.

As you will see, some categories, such as urban water management and resource economics, have a number of strong candidates. Other categories, such as organizational and behavioral dynamics, have fewer candidates.

During today's meeting, we are hoping to:

- Review the candidate names and determine which categories, if any, require recruitment of additional candidate names.
- Discuss the process and timeline for vetting and prioritizing these names among the affected stakeholder communities.

We look forward to our discussions with you on this topic.

Water Use Efficiency Science Review Panel

CANDIDATE NOMINATIONS – LIST 2

Name	Title	Qualifications
Dr. Jean Bahr	Birdsall-Dreiss Distinguished Lecturer, University of Wisconsin, Geology Dept, Hydrogeology	Expertise in groundwater-surfacewater interaction Chair, CROGEE Committee (Everglades) Papers include: effects of groundwater development on springflow in the upper Midwest; groundwater as an ecosystem resource http://www.geology.wisc.edu/~jmbahr/index.html
Dr. Jim Constantz	USGS-Menlo Park, Hydrologist	Developer of widely used, temperature-based methods of quantifying GW-SW interaction Recent focus on stream restoration, including dam removal, and effects on GW-SW interaction Recent work in southwest US.
Dr. Graham Fogg	UC-Davis Professor of Hydrogeology, Hydrogeologist	Recent focus on Consumnes River, wrote "Review of California's Integrated Groundwater and Surface-Water Model (IGSM)" in 2001. Research interest in groundwater contaminant transport; groundwater basin characterization and management; geologic/geostatistical characterization of subsurface heterogeneity for improved pollutant transport modeling; numerical modeling of groundwater flow and contaminant transport; role of molecular diffusion in contaminant transport and remediation; long-term sustainability of regional groundwater quality; vulnerability of aquifers to non-point-source groundwater contaminants. http://lawr.ucdavis.edu/faculty/fogg/
Devin Galloway	Regional groundwater specialist, USGS-Sacto	Regional groundwater specialist, specialist in subsidence, conducted research on subsidence in San Joaquin and Santa Clara valleys, Sacramento-San Joaquin delta.
Dr. David Genereux	North Carolina State University, Associate Professor of Marine, Earth, and Atmospheric Sciences	GW-SW interaction in S. Florida Very good AE for water resources research Interests: Interaction of GW and SW, hydrogeology, watershed hydrology and groundwater flow, chemical/isotope hydrology, biogeochemical cycling. Associate Editor, Water Resources Research, 1998-present Chair, Water Quality Technical Committee, American Geophysical Union, 1999-2001 Science Advisory Board, MacArthur Agro-Ecology Research Center, Florida, 1999-2002 Panelist, EPA and NSF grant programs, 1995-1999 http://www.meas.ncsu.edu/faculty/genereux/genereux.htm
Dr. Michael Gooseff	Utah State University, Asst. Professor, Dept.	Recent Diane McKnight PhD student, PhD in Civil Engineering, focus on Water Resources (2001) Hyporheic zone work but with ecological emphasis Interests: Stream solute generation, transport, and fate modeling using deterministic physical hydrologic

	of Aquatic, Watershed, and Earth Resources	modeling to quantify hydrologic influence on nutrient cycling and geochemical reactions. http://cc.usu.edu/~gooseff/
Brian Gray	Hastings, Environmental Law Professor	Expert in California Water Law policy J.D. from Boalt Hall in 1979. While attending Boalt, he was Editor-in-Chief of the California Law Review. Professor Gray served as a law clerk to Judge Arlin M. Adams of the U.S. Court of Appeals for the Third Circuit during the 1979-80 term. He went on to practice at Howard, Rice, Nemerovski, Canady, Robertson & Falk of San Francisco. Professor Gray has served on the Board of Directors of the Berkeley Law Foundation and the Natural Heritage Institute, has chaired the California State Bar Committee on the Environment, and has served as a consultant to the California Law Revision Commission. Professor Gray teaches environmental law as a first-year elective, public lands and natural resources, water resources, and related seminars. He has received the Hastings Outstanding Professor Award and was awarded the Harry and Lillian Hastings Research Chair for the 1999-2000 academic year. Professor Gray presently is researching a book on environmental history entitled No Holier Temple: Hetch Hetchy and the American Environmental Movement. http://www.uchastings.edu/fac_01/regularfac/gray.htm
Dr. Joel Massman	University of Washington, Hydrologist	Effect of groundwater development on streamflow and temperatures in salmon-spawning streams in greater Seattle area, Development of 3D numerical groundwater flow model for the Duwamish River Basin. Also research on storm water facilities design. Recently left UW for private sector, on Hanford Advisory Board
Dr. Suzanne Michel	Independent scholar and consultant,	Water resources geography; received PhD in 2000\ Focuses on integrating scientific research with water resources policy, land use planning, sustainability science and environmental justice Post-Doctorate Research Fellow, Institute for Regional Studies of the Californias, San Diego State University. Recent publication in the Natural Resources Journal examines the geographic relationship among water transfers, wetland desiccation, marine ecosystem, and water quality degradation along the border between California and Baja California http://www-rohan.sdsu.edu/dept/irsc/staff97.htm
Dr. John Minan	Professor of Law, University of San Diego	Expertise in property, land use planning and water law Chair, CA Regional Water Quality Control Board Board Member, Southern Wetlands Recovery Project Board Member,. San Diego River Conservancy. Was a trial attorney in the Civil Division of the U.S. Department of Justice and a law professor at the University of Toledo before coming to USD in 1977. He has also taught at the National Judicial College in Reno, Nevada. He teaches and writes in the areas of land-use planning, property, water rights and comparative law; and is nationally recognized in the field of solar energy law. He has authored or co- authored six books, four contributions to books, more than 20 law review articles and numerous published reports and proceedings. http://www.sandiego.edu/~usdlaw/fac_adm2.html#MINAN

Dr. Ian Packman	Northwestern	Fluid mechanician; does flume studies of GW-SW interaction
	University,	Main focus is the study of environmental transport processes, including both hydrodynamic transport
	Assistant	processes and reactive transport processes.
	Professor,	Associate Editor, Water Resources Research
	Environmental	Water Quality Committee, American Geophysical Union
	Engineering	Sedimentation Committee, American Society of Civil Engineers
	o o	Environmental Hydraulics Committee, American Society of Civil Engineers
		Chair, Task Committee on Contaminated Sediments, American Society of Civil Engineers
		http://www.civil.northwestern.edu/people/packman/Main.htm
Dr. Gordon C.	UC Berkeley,	(Ph.D., University of California, Davis, 1971). Environmental regulations, air quality, water quality,
Rausser	Envi.& Resource	quantification of environmental externalities, biodiversity, stigmatized property values, collective decision-
	Econ & Policy,	making and multilateral bargaining in water resource systems.
	Dept of Agric&	J J J
	Resource Econ	
Dr. Jeff Romm	UC Berkeley,	(Ph.D., Cornell University, 1970). Distribution, growth, and resource sustainability; watershed and basin
	Envi.& Resource	policy; race and resources.
	Econ & Policy,	
	Dept of Agric&	
	Resource Econ	
Joe Sax	UC-Berkeley,	Expert in California Water Law policy
	Professor of	Joined the Boalt Law faculty in 1986. Has been a visiting professor at Stanford University and the
	Environmental	Universities of Utah and Paris, and was a fellow at the Center for Advanced Study in the Behavioral
	Regulation,	Sciences. Is currently a fellow of the American Academy of Arts and Sciences, and his awards and
	Emeritus	citations include the Distinguished Faculty Achievement Award from the University of Michigan, the
		Elizabeth Haub Environmental Prize of the Free University of Brussels, the Audubon Society's
		Conservationist of the Year Award, the William O. Douglas Legal Achievement Award from the Sierra Club,
		and the Environmental Quality Award of the U.S. Environmental Protection Agency.
		Sax has served as a consultant or board member of 19 different environmental public service organizations
		and was awarded an honorary doctor of laws degree by the Illinois Institute of Technology. His major books
		include Mountains Without Handrails; Water Law—Planning and Policy; Water LawCases and
		Commentary; Defending the Environment; and, most recently, Playing Darts with a Rembrandt: Public and
		Private Rights in Cultural Treasures (1999).
		From 1994 to 1996, Sax served in President Clinton's administration as the counselor to the secretary of
		the interior and deputy assistant secretary for policy at the U.S. Department of the Interior.
		http://www.law.berkeley.edu/faculty/profiles/facultyProfile.php?facID=141
Dr. David L.	Associate	Prof. Sedlak teaches graduate courses in environmental chemistry and ecological engineering. He also
Sedlak	Professor of	teaches an introductory undergraduate course in environmental engineering and science. He is a lead
	Civil &	faculty advisor for the environmental engineering science program.
	Environmental	His research interests are related to the fate and transport of pollutants in the aquatic environment. Current
	Engineering, UC	research projects focus on the fate of wastewater-derived organic compounds in systems employed for

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	Berkeley	water reuse and the speciation of pollutant metals. He teaches courses on California water, water chemistry, and environmental analytical chemistry Ongoing projects include:
		*Formation and Removal of NDMA in Water Recycling Systems
		*The Fate of Hormones in the Aquatic Environment
		*Pharmaceutically-Active Compounds in Aquatic Systems
		*The Fate of Metal-Organo Complexes in Engineered Treatment Systems
		*The Uptake of Pollutant Metal Complexes by Plants
		*Mercury Speciation and its Effect on Methylation
		Publications include:
		Sedlak D.L., Gray J.L. and Pinkston K.E. (2000) Understanding microcontaminants in recycled water. Environ. Sci. Technol. 34, 508A-515A.
		For full bio, see:
		http://www.ce.berkeley.edu/~sedlak/
Dr. Leo K. Simon	UC Berkeley, Envi.& Resource Econ & Policy, Dept of Agric& Resource Econ	(Ph.D., Princeton University, 1981). Multilateral negotiations over common property resource allocation, esp. water allocation; mechanism design and environmental regulation; comparing agri-environmental policy processes in the U.S. and Europe. Personal website.
Bob Walker	Cal Poly, Bioresource and Agricultural Engineering	Irrigation expertise Alumnus of the Cal Poly Agricultural Engineering Department. Teaches Principles of Irrigation, Drainage, Conservation Engineering, Irrigation Water Management, and Landscape Irrigation Design. Served as director for several projects designed to assist the landscape irrigation industry to evaluate and improve the performance of irrigation systems. Current professional interests include surface and subsurface drainage and irrigation water management. Specialties: Irrigation Engineering; Drainage Engineering; Flood Hydrology; Irrigation http://www.calpoly.edu/~brae/faculty/walker.html
Dr. Tom Winter	USGS-Denver	Expert on groundwater-lake and groundwater-wetland interaction. Collaborating on project on "Integrating the Effects of Land Use and Global Climate Change on Hydrology and Vegetation of Northern Great Plains Wetlands, USA" Author, USGS Circular 1139: Ground Water and Surface Water – A single Resource

Fields Needed: Ag Water Management, Ecology, Resource Econ, Recycling Engineering, Org/Beh Dynamics, Urban Water Management

Water Use Efficiency Science Review Panel

CANDIDATE NOMINATIONS – LIST 1

NAME	TITLE	QUALIFICATIONS
AGRICULTURAL WATER MANAGEMENT		
Jack Keller	Principal, Keller- Bleisner Professor Emeritus, Utah State	Familiarity with CALFED Program - Member, WUE Panels on Ag Msmt and Conservation Potential - Senior Integrator, CALFED WUE Program Strongly respected by affected stakeholder communities - Good working relationship with CALFED Science Program URBAN WATER MANAGEMENT
Richard	UCLA,	Books include focus on: water efficient household technology impatcs, human dimensions of global climate
Berk	Department of Sociology	change, economics of household production Interests: Program evaluation, environmental research, criminal justice, statistical methods. Current Research: statistical methods for evaluating computer simulation models, statistical methods for generalizing from case studies, experiments on prison inmate classification systems, climate change and water sustainability in Asian Pacific cities. http://www.sscnet.ucla.edu/soc/index.php?page=faculty&lid=1307
Tom Chesnutt	Co-founder, A & N Technical Services, Inc.	Nationally recognized expert on broad range of water use efficiency measures; pioneering work on estimating water savings. His firm provides state-of-the-art expertise in the fields of resource economics, program evaluation, market and cost analysis, rate design, and empirical policy analysis. Firm also does design and implementation of microcomputer-based applications of policy analysis, including econometric time series analysis, stochastic simulation, forecasting, and decision-support software. These applications are in the areas of water policy analysis, environmental policy, health statistics, and regulatory analysis. Chestnutt has published extensively on the topic of water demand.
Bob Wilkinson	UC-Santa Barbara	Chair, Earth Island Institute, and contributor to the Rocky Mountain Institute's water program. Is independent consultant working in the US and internationally on energy, environment and resource issues with a focus on policy and technology applications. Is an Adjunct/Senior Research Associate at the Rocky Mountain Institute and teaches courses on sustainability at UCSB's Environmental Studies Program and the SBCC Adult Education Program. Formerly Dean and Director of the Graduate Program in Environmental Sciences and Policy at the Central European University, Wilkinson also served as an administrator and energy specialist at UCSB for over ten years. He is a Signatory and RMI representative to the California Urban Water Conservation Council. He participated in the early development of the urban Best Management Practices. Interests: water use and resources in California; climate issues; natural capitalism; and examples of efficient system design. http://www.rmi.org/images/other/BioRWilkinson.pdf

		RECYCLING ENGINEERING
Tak Asano	UC-Davis Professor Emeritus, Civil and Environmental Engineering	Received 2001 Stockholm Water Prize for theoretical and practical contributions to wastewater reclamation, recycling and reuse. Has >35 years of academic and professional experience in environmental and water resources engineering. 1978-1992 was the Water Reclamation Specialist for the SWRCB. Did major water reclamation and reuse studies at SWRCB and UCDavis. http://cee.engr.ucdavis.edu/faculty/asano/
Jean- François Debroux	Associate Scientist/ Engineer, Kennedy/Jenks Engineering	Post-Doctoral Research Fellow and Lecturer, Stanford University, 1998-2000 Ph.D., Civil Engineering, University of Colorado, Boulder, 1998 Research Fellow, Université de Poitiers, France, 1996-1997 MS, Environmental Engineering, University of Colorado, Boulder, 1996 Environmental Management Institute, Tufts University, Medford, Massachusetts, 1990 BS, Chemical Engineering, University of South Florida, Tampa, 1987 Dr. Debroux has been employed in the environmental field since 1987. After obtaining his undergraduate degree, he worked for five years for an environmental services firm prior to his tenure in graduate studies. Throughout his graduate education, he worked with water utilities and research organizations in the fields of water treatment and water reuse. While at Stanford University, Dr. Debroux performed research and co-taught a graduate course. The research concentrated on various aspects of water reuse, including identifying and monitoring trace levels of anthropogenic organic compounds through the subsurface during aquifer recharge and utilizing the fluorescing properties of naturally- occurring organic matter in waste water treatment plant effluents as a tracer during subsurface transport. The course taught by Dr. Debroux, entitled "Analytical Techniques to Separate, Identify, and Quantify Environmental Organic Compounds," focused on the environmental applications of analytical chemistry.
		As a member of the National Center for Sustainable Water Supply, Dr. Debroux maintains professional relationships with the water recycling professionals in the Western United States. Dr. Debroux is an active member of the WateReuse Research Foundation and sits on the Technical Advisory panel for the Foundation. Dr. Debroux is currently involved in various projects at Kennedy/Jenks Consultants, where he is utilized as a water quality expert, a research scientist, and as a design engineer. Water Reuse Projects Water Quality Sampling and Analysis, Santa Clara Valley Water District, San Jose, CA. Managing the analytical protocol to be performed by Stanford University, the University of California at Berkeley, and various water quality laboratories. Managed tasks will include sampling, sample distribution, QA/QC, and data analysis. Groundwater Recharge Review, Scotts Valley Water District, Scotts Valley, CA. Prepared a report for the water district evaluating the regulatory and technical issues pertaining to recharge of a potable source aquifer with treated tertiary effluent.

Civil Engineer in

California and

Colorado

Principal
Engineer,
Kennedy/Jen
Engineering,
Professional

Mr. Lichty has 20 years of consulting experience with specialized expertise in water recycling. This experience encompasses master planning, hydraulic modeling, feasibility studies, treatment evaluations, pilot plant work, facilities plans and alignment studies, trenchless pipeline construction evaluations, corrosion assessments, pipeline rehabilitation, regulatory and funding assistance, water quality evaluations, public education and outreach, environmental compliance, preliminary and final design, and construction administration and management.

His projects have addressed a wide variety of regulatory and user issues associated with urban/residential areas, agriculture regions, commercial/industrial applications and indirect potable reuse. His market assessment related work has included determining specific use patterns, peaking factors, and onsite retrofit/conversion requirements for landscape and agricultural irrigation, dual-plumed buildings and residential developments, unrestricted water features, cooling towers, paperboard recycling, concrete batching, groundwater recharge, direct injection, reservoir augmentation, and stream flow augmentation uses.

Mr. Lichty is an active member of the WateReuse Association and Research Foundation, and their joint affiliations with the American Waterworks Association and the Water Environment Federation. He has served as Project Manager for the following water recycling projects, unless mentioned otherwise:

- Presidio of San Francisco Recycled Water Project Final Design and Regulatory Approval, Presidio Trust, San Francisco, CA.
- Water Recycling Feasibility Study for Redwood Shores, The City of Redwood City,
- Presidio of San Francisco Recycled Water Discharge Feasibility Study, Presidio Trust, San Francisco, CA.
- Presidio Water Recycling Master Plan, Presidio Trust, San Francisco, CA.
- City of Redwood City Highway 101 Bike Path Pipeline Design, CA.
- City of Redwood City Program Support Services and Citywide Recycled Water Master Plan, CA.
- Lamorinda Recycled Water Project, East Bay Municipal Utility District, CA.
- South Bay Water Recycling Phase II Master Plan and Conceptual Design, City of San Jose, CA.
- Recycled Water Pipelines Design Packages 1 through 14, City of Santa Clara, CA.
- Reclaimed Water Distribution System Master Plan, Castaic Lake Water Agency, Santa Clarita, CA.
- South Bay Water Recycling Phase II Site Retrofits Design 2001.
- Advance Treated Recycled Water (ARWT) Feasibility Study, Santa Clara Valley Water District (SCVWD), Santa Clara County, CA.
- Moorpark Tertiary Treatment Facilities, County of Ventura, CA.
- Forestville and Graton Water Quality Control Plant Improvements, Sonoma County, CA.
- Reuse Pump Station, Castaic Lake Water Agency, Santa Clarita, CA.
- Phase I Recycled Water System, Castaic Lake Water Agency, Santa Clarita, CA.
- Rancho-Santa Rosa Non-Potable Groundwater Feasibility Study, Camrosa Water District, Ventura County, CA.

George Tchobanog lous	UC-Davis, Professor Emeritus, Civil and Environmental Engineering	Professor Tchobanoglous' research interests are in the areas of wastewater treatment and reuse, wastewater filtration, UV disinfection, aquatic wastewater management systems, wastewater management for small and decentralized wastewater management systems, and solid waste management. He helped organize the first national conference on the uses of aquatic plant systems for wastewater treatment held at the University of California at Davis in 1979. Most recently, he Chaired a Blue Ribbon Panel, convened by the Department of Health Services of the State of California and the National Water Research Institute, which developed guidelines for the application of UV in wastewater reclamation. He has authored or co-authored over 300 technical publications including 12 textbooks and two reference works. The textbooks are used in more than 200 colleges and universities throughout the United States, and they are also used extensively by practicing engineers, both here and abroad. He serves as consulting editor for the McGraw-Hill book series in Water Resources and Environmental Engineering. He consults nationally and internationally to governmental agencies and private companies. As an active member of numerous professional societies, he is a Past President of the American Association of Environmental Engineers. Books include: Wastewater Engineering: Treatment and Reuse Wastewater Engineering: Treatment, Disposal, and Reuse http://cee.engr.ucdavis.edu/faculty/tchobanoglous/
Cliff Dahm	University of New Mexico, Professor of Biology, PhD in Aquatic Ecology	Ecology Ecologist, aware of hydrologic issues Strong focus on Rio Grande, researched evapotranspiration along the Rio Grande, President of North American Benthological Society Research Interests: Aquatic ecology; stream/groundwater interactions; microbial ecology; nutrient cycling; microbial and chemical processes in volcanic environments; dissolved organic carbon in streams; stream ecosystems. Heads the Hydrogeoecology Research Group.
Greg Golet	Ecologist, The Nature Conservancy, Sacramento River Project,	Has written papers on "Survival and growth of valley oaks at restoration site" and "Vegetation dynamics at restoration sites and remnant riparian sites." Is leading TNC's effort at riparian restoration in the Middle Sacramento River, replacing senescent orchards with native riparian trees and shrubs as part of restoring communities and natural processes along the Middle Sacramento River. Has conducted research on migratory birds in Alaska. Ph.D. from UC Santa Cruz in Biology in 1999

Diane McKnight	University of Colorado, Associate Professor of Civil, Environmental and Architectural Engineering	Fellow and Associate Director of Mountain Research Station of INSTAAR Specialist in limnology, biogeochemistry of lakes and streams. Research Interests: interactions between hydrologic, chemical and biological processes in controlling the dynamics in aquatic ecosystems. Research carried out through field-scale experiments, modeling, and laboratory characterization of natural substrates. Main field sites in Rocky Mountains and Transantarctic Mountains, and include pristine and stressed ecosystems, such as acid mine drainage influences mountain streams. Conducts research focusing on interactions between freshwater biota, trace metals, and natural organic material in diverse freshwater environments, including lakes and streams in the Colorado Rocky Mountains, and in the McMurdo Dry Valleys in Antarctica. Develops interactions with state and local groups involved in mine drainage and watershed issues in the Rocky Mountains. A co-principal investigator in the McMurdo Dry Valley LTER and in the Niwot Ridge LTER. Big thinker, 1995 USGS Meritorious Service Award, many publications. In regard to candidate's expertise in water flowpath and balance issues, her specialty is limnology and her main research areas are aquatic ecology, biogeochemistry, and hyporheic zone/reactive solute transport. Because her focus is on the movement of chemicals through lakes, streams, and watersheds, it can be assumed that she has water flowpath expertise. In addition, prior to her appointment at the Univ. of Colorado, she was a Research Hydrologist with the USGS and a Research Advisor in Ecology, Water Resources, also at the USGS. Some of the national committees on which she serves address water balance and distribution issues, including: *Science Advisory Board, National Oceanic and Atmospheric Administration, member 1998-2000 *Intergovernmental Panel on Climate Change, Working Group 2- Impacts, Vulnerability and Adaptability, group 15- North America (1998-present) *US Global Change Research Program, Water Cycle Science Plan committee
		http://instaar.colorado.edu/people/bios/mcknight.html

		RESOURCE ECONOMICS
Richard M.	Oregon State	Research Interest Statement -Dr. Adams' current research interests focus on the economic effects of air and
Adams	University, Dept	water pollution, the implications of climate change for agriculture and water resources, and the tradeoffs between
	of Agricultural	agricultural activity and environmental quality.
	and Resource	Biographical Sketch - Richard M. Adams is professor of Agricultural and Resource Economics. Prior service
	Economics	includes assistant and associate professor, University of Wyoming. He has served as editor of the American
		Journal of Agricultural Economics and associate editor for Water Resources Research and the Journal of
		Environmental Economics and Management. He is a member of various government committees dealing with
		climate change, air and water pollution and other environmental issues.
		Selected Honors, Awards, and Professional Recognition and Service
		AAEA Service and Awards: AAEA Home Page
		Distinguished Fellow (Formally inducted at the AAEA Annual Meeting in Chicago, August 2001).
		Reviewer and chairperson, AAEA annual meetings various sessions and years.
		Member, AAEA Outstanding Policy Contribution Committee, 1990-92; 1998-2000.
		Editor, American Journal of Agricultural Economics, 1992-1994, Vols. 74-76.
		WAEA Service and Awards:
		Reviewer and Chairperson, WAEA annual meetings various sessions and years.
		Outstanding Journal Article (Lin, Adams, Berrens), Journal of Agricultural and Resource Economics, 1996.
		Government Service and Awards:
		USEPA Air Ecology Peer Review Panel, 1980-1982.
		Agricultural Advisory Committee, and Chairman, Science Advisory Subcommittee, California Air Resources Board, 1982-1988.
		Invited Participant, NATO Advanced Research Seminar on the Effects of UV-B Radiation on Terrestrial
		Ecosystems, Bad Windsheim, West Germany, September 1983.
		Invited Participant, USEPA/NATO Workshop on the Effects of Air Pollutants on Climate and Visibility: Research
		Review and Recommendations, Rougemont, North Carolina, January 29-February 1,1984.
		Member, USEPA Photobiology Peer Review Panel, 1984-1986.
		U.S. Environmental Protection Agency, Award for Research Excellence, National Crop Loss Assessment
		Network, November 1987.
		Invited Participant, U.SDutch Symposium on Ozone Effects. Nimegen, The Netherlands, 1988.
		Advisory Panel, Systems at Risk from Climate Change. U.S. Congress, OTA, 1992.
		USEPA Socioeconomic Review Panel, 1995.
		Steering Committee for Agricultural Assessment, ASGCRP, 1998-2000.
		National Technical Advisory Committee, National Institute for Global Environmental Change, 1997-2000.
		Reviewer for twenty professional journals.
		Research Grants
		Principal or Co-Principal Investigator on 18 major grants totaling \$2,500,000 including four USDA, CSRS
		Competitive Grants totaling \$750,000 since 1989.
		http://arec.oregonstate.edu/faculty2/Adams.pdf; also, http://arec.oregonstate.edu/faculty2/adams.htm

Sandra	University of	Areas of expertise: Agriculture-productivity, technical changes; energy policy; environment-pesticide use, water
Archibald	Minnesota.	use; food production, safety; land use; science and technology policy; sustainable development
Archibaid		
	Associate Dean,	Biography:
	Professor,	Professor Sandra O. Archibald is a faculty member of the Humphrey Institute, and the University of Minnesota
	Hubert	graduate faculty in applied economics, and the graduate faculty in water resource sciences. Archibald formerly
	H.Humphrey	held an appointment in the Food Research Institute at Stanford University and recently was a visiting scholar at
	Institute of	the University of California, Berkeley's Goldman School of Public Policy.
	Public Affairs	Archibald's recent research focuses on the economics of water, including water markets and water policy.
		Archibald has served on numerous National Research Council committees for the National Academy of Sciences,
		the National Academy of Engineering, and the Institute of Medicine.
		Archibald is a member of the board of directors of the National Water Research Institute and active in the
		Association of Public Policy Analysis and Management, the European Association of Environmental and
		Resource Economics, and the American Agricultural Economics Association. She has served as a consultant to
		the U.S. Agency for International Development, the U.S. Environmental Protection Agency, the U.S. Department
		of Interior, and numerous other organizations. Archibald's research has been published in Land Economics, the
		Journal of Development Economics, the Journal of Comparative Economics, and the American Journal of
		Agricultural Economics.
		She is extensively involved in public service and research designed to support public policy decisions. Archibald
		holds a doctorate and a master of science degree in agricultural and resource economics from the University of
		California, Davis and a master's degree in public policy from the University of California at Berkeley.
		http://www.hhh.umn.edu/people/sarchibald/index.htm
		http://www.nini.unin.edu/people/sarchibalu/index.ntm

B. Delworth Gardner	Brigham Young University, Dept of Economics, Emeritus Professor

- Professor of Economics, Brigham Young University and Professor Emeritus of Agricultural Economics, University of California, Davis.
- ➤ Professor of Agricultural Economics, University of California, Davis, 1976-86. Director Giannini Foundation of Agricultural Economics, University of California, 1976-82.
- Associate Professor and Professor of Agricultural Economics, Utah State University, 1962-76, and Head of Department, 1970-75.
- > Assistant and Associate Professor of Economics, Brigham Young University, 1957-62.
- Assistant Professor of Agricultural Economics, Colorado State University, 1957-59.
- Visiting Professor of Agricultural Economics, University of California, Berkeley, 1965.
- Visiting Scholar, Resources for the Future, Inc., Washington DC 1968-69.
- Associate Editor, American Journal of Agricultural Economics, 1985-90. Associate Editor, Western Journal of Agricultural Economics, 1988-90. Advisory Board Choices, 1990-92.
- Ford Foundation Faculty Research Fellow, 1962.
- > Faculty Honor Lecture, Utah State University, 1968.
- > President, Western Agricultural Economics Association, 1971.
- Silver Page Award for outstanding paper published in Journal of the American Society off Farm Managers and Rural Appraisers, 1979.
- Consultant to the Agency for International Development; the Ford Foundation, India; Charles T. Main, Ecuador; the Industrial Management Institute, Iran; Chairman, Committee on Rangeland Management, National Academy of Sciences; Consultant to California Department of Water Resources; Utah Department of Resources; Resources for the Future; Forest Policy and Management Program; Council for Agricultural Science and Technology; Academic Advisory Board, Political Economy Research Center.

Gardner's work is characterized by adroit use of the neoclassical paradigm to show the misallocation of resources resulting from barriers to market entry, impediments to asset transfer, and regulatory rules utilized by government agencies. Livestock grazing, range improvement, oil shale development, water allocation and development, and domestic and foreign agricultural policies are among the topics studied. In more recent years he has also employed the "public choice" paradigm to enrich his analysis of institutions and policy, and he just completed a book on the political economy of the agricultural sector.

Probably Gardner's most significant professional contribution is his work on water. He was among the first to estimate the elasticity of demand for household water using cross-sectional data from Northern Utah, and his estimate has proved to be durable in light of more recent and time series estimate. He was also among the first to systematically study water markets as an allocating mechanism and showed the increase in water values that ensues when impediments to water transfers are removed. As early as 1965, Gardner was strongly advocating water markets as the solution to allocating problems resulting from premature and inefficient water development and use. Such markets would force holders of water rights to face the true opportunity cost of water use and thus promote efficiency and conservation. Today, there is virtual consensus among resource economists that water markets hold great promise for reaching efficiency and equity goals. Many institutional changes are being made in many states and the Federal government to accommodate water markets along the lines recommended by Professor Gardner.

http://www.aaea.org/fund/fellows/f92gardner.cfm

D 0 :"	T 4084	DO (M. 4)
Ron Griffin	Texas A&M	B.S. (Mathematics), Colorado State University, 1975
	Dept of	M.S. (Economics), Colorado State University, 1977
	Agricultural	Ph.D. (Agricultural Economics), University of Wisconsin - Madison, 1980
	Economics	Professional and Academic Appointments
		Assistant Professor, Department of Agricultural Economics, Texas A&M University, 1980-1986
		Associate Professor, Department of Agricultural Economics, Texas A&M University, 1986-1993
		Professor, Department of Agricultural Economics, Texas A&M University, 1993-present
		Associate Editor, Journal of the American Water Resources Association, January 1992-present
		Associate Editor, Journal of Water Resources Planning and Management, January 1999-present
		Program Emphasis
		Primary research activities and funding support pertain to water resource issues. Demand analysis, resource
		valuation, and policy analysis in both quantitative and qualitative dimensions of water problems are program
		elements. Methods of study employed in completed research include microeconomic theory, statistical analysis,
		mathematical programming, and descriptive, institutional investigation.
VA/ NA: ala a al	LIC Darkalas	http://ron-griffin.tamu.edu/RGsCV.html
W. Michael	UC-Berkeley,	Research interests: non-market valuation, environmental economics and policy, water pricing and management,
Hanneman	Chancellor's	demand modeling for market research and policy design, the economics of irreversibility and adaptive
	Professor,	management, and welfare economics.
	Department of	His work has appeared in AER, Econometrica, JEEM, AJAE, and elsewhere.
	Agricultural and	Contributing author, Urban Water Demand Management and Planning.
	Resource	(Ph.D., Harvard University, 1978). non-market valuation, discrete choice modelling, water demand and pricing,
	Economics	water utility economics, uncertainty and irreversibility in environmental management, environmental policy,
		climate change.
		http://are.Berkeley.EDU/~hanemann/
Julie Hewitt	U.S. EPA Nat'l	Ph.D., Agricultural and Resource Economics, University of California - Berkeley, 1993.
	Ctr. for Envi.	Current Research and Policy Analysis Interests: Water demand estimation, Land use, Climate change,
	Economics,	Dissemination of environmental economics research results
	Research &	Selected Publications:
	Program	> "An Investigation into the Reasons Why Water Utilities Choose Particular Rate Structures," in The Political
	Support Div.,	Economy of Water Pricing Reforms, Ariel Dinar, ed., Oxford University Press, forthcoming.
	was Assistant	 "An Investigation into the Reasons Why Water Utilities Choose Particular Rate Structures," in The Political
	Prof, Dept of	Economy of Water Pricing Reforms, Ariel Dinar, ed., Oxford University Press, 2000.
	Agric Economics	 "A Discrete/Continuous Choice Approach to Residential Water Demand Under Block Rate Pricing: Reply,"
	Montana State	Land Economics, 76(2), 324-330, May 2000.
	University,	
	Offiversity,	"Agency Costs in Environmental Not-for-profits" (with Daniel K. Brown), Public Choice, 203(1/2):163-183,April 2000.
		Subjects covered: Benefits Analysis, Benefits Analysis – Valuation, Benefits Analysis - Valuation - Stated
		Preference, Benefits Analysis - Valuation - Revealed Preference
		http://yosemite.epa.gov/EE/epa/staff.nsf/74bcd8a5ebfda7ac8525647e0070aa86/791ecf9c88d44369852567da00
		55cc67?OpenDocument

Richard	UC Davis, Dept	Ph.D. University of California Davis, 1975
Howitt	of Agricultural	Fields of Interest: Resource economics, environmental economics, quantitative methods, econometrics,
	and Resource	operations research
	Economics	Reseach Interests: (i) Policy Models: The modeling methods below are developed with agricultural and
		environmental policy models in mind. Such models do not test fundamental properties of the system such as the
		rate of technical change or the presence of curvature in the profit function. However, policy models do use the
		information from more aggregate models to develop disaggregate models that can reproduce observed resource
		use, and forecast the reaction of farmers and resource users to changes in prices, property rights, or
		environmental constraints on resource use and disposal.
		(ii) Disaggregated economic modeling methods. I am currently developing reconstruction and calibration methods
		based on Maximum Entropy estimators to model the economic structure of farming and other economic uses of
		land and resources from disaggregated data on land area, yield and crop selection. In short, instead of using
		economic survey data to infer the use of resources, I am using physical data to infer the underlying economic
		functions facing the manager. The reasons for this approach are (a) Environmental analysis must be done on a
		disaggregated level to be meaningful, and (b) Remote sensing methods can supply physical data at a fraction of
		the cost of economic surveys.
		(iii) Empirical dynamic stochastic methods. These approaches can be used to analyze the switch in investments
		and changes in institutions subject to dynamic stochastic inputs and irreversible costs or decisions.
		Publications in: Policy Models of Agricultural Production and Resource Use, Disaggregated Economic Modelling
		Methods, Empirical Dynamic Stochastic Methods
		Member: American Agricultural Economics Association, Western Agricultural Economics Association of
		Environmental and Resource Economics
		Reviewer: American Journal of Agricultural Economics, Journal of Agricultural & Resource Economics, Journal of
		Environmental Economics & Management, National Science Foundation, Water Resources Research, European
		Review of Agricultural Economics, Land Economics, Journal of Agricultural Economics
		Awards:
		The American Agricultural Economics Association Award for Quality of Research Discovery in a Journal
		Publication, 1976 Chair for AAEA Outstanding Dissertation Award, 1976 and
		http://www.agecon.ucdavis.edu/facultypages/howitt/howitt.htm
		1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

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Ray	Washington	1983 Ph.D., Agricultural Economics, University of California, Davis
Huffaker	State University,	1986 J.D., University of California, Davis, School of Law
	Dept of	1978 A.B., Economics and Italian, University of California, Davis
	Agricultural and	FIELDS OF INTEREST: Resource economics, Biomathmatical modeling, Agricultural law
	Resource	EMPLOYMENT
	Economics	 2000-Present – Professor, Dept. of Agricultural and Resource Economics; Adjunct Professor, Dept. of Natural Resource Sciences—all at Washington State University.
		> 1990-2000 - Asst. and Assoc. Professor, Dept. of Agricultural Economics; Adjunct Assoc. Professor, Dept. of
		Natural Resource Sciences; Graduate Faculty, Dept. of Environmental Sciences and Regional Planningall at Washington State University.
		> 1987-90 - Asst. Professor, Dept. of Agricultural Economics, University of Tennessee, Knoxville.
		Fall 1986 - Lecturer, Dept. of Agricultural Economics, University of California-Davis.
		> 1984-86 - Post Doctoral Researcher, Dept. of Agricultural Economics, University of California-Davis.
		OTHER PROFESSIONAL EXPERIENCE
		* 1990-93 - Associate Editor, Water Resources Research, American Geophysical Union.
		* 1994-present – Associate Editor, Journal of Agricultural and Resource Economics, WAEA.
		* 1996-present - Board of Advisors, Choices, AAEA.
		HONORS AND MEMBERSHIPS
		* Phi Beta Kappa
		* Phi Kappa Phi
		* University Research Grant-In-Aid Award (WSU, 1992)
		* Undergraduate Teaching Computational Science Award (DOE, Ames Laboratory, 1994)
		* American Agricultural Economics Association
		* Western Agricultural Economics Association
		http://www.arec.wsu.edu/people/huffaker.html
Doug	University of	B.A. 1984, University of California, Santa Barbara: Economics and Environmental Studies
Parker	Maryland,	Ph.D. 1990, University of California, Berkeley: Agricultural and Resource Economics
Fairei	Agricultural and	
	Resource	Research: Water Quality and Land Use; Land/Water Linkages in the Chesapeake Bay; Agricultural Production
		Awards and Recognition: Dr. Parker currently serves as Director of the Center for Agricultural and Natural
	Economics	Resource Policy in the Department of Agricultural and Resource Economics.
		Selected Publications:
		Parker, D., F. Castillo, and D. Zilberman, 2001. Public-Private Sector Linkages in Research and
		Development: The Case of U. S. Agriculture, American Journal of Agricultural Economics, 93(3):736-741.
		Parker, D., 2000, Controlling Agricultural Nonpoint Water Pollution: Costs of Implementing the Maryland
		Water Quality Improvement Act of 1998, Agricultural Economics 24:23-31.
		Parker, D., D. Cohen-Vogel, D. Osgood, and D. Zilberman, 2000, Publicly Funded Weather Database
		Benefits Users Statewide, California Agriculture 54(3):21-25.
		Cohen-Vogel, D., D. Osgood, D. Parker, and D. Zilberman, 1998, The California Irrigation Management
		Information System (CIMIS): Intended and Unanticipated Impacts of Public Investment, Choices 20 - 25.
		http://www.arec.umd.edu/dparker/
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David L.	Associate	Ph.D., University of California, Berkeley, 1989.
Sunding	Professor, UC	Focus: Water resources, pesticides, wetlands, pollution monitoring, nonuniform regulation.
	Berkeley,	Other jobs:
	Environ. &	Senior Consultant, Charles River Associates, Boston, MA, 2003 - Present.
	Resource	Special Consultant, National Economic Research Associates, San Francisco, CA, 1997 – 2002.
	Economics &	Selected Professional Service:
	Policy, Dept of	Science Advisory Board, National Center for Housing and the Environment. 2003 - Present.
	Agricultural &	President, International Water Resource Economics Consortium, 2002-2004.
	Resource	Member, Expert Panel on Cost Allocation, CalFed Bay-Delta Program, 2001-2002.
	Economics	Member, National Academy of Sciences Panel on Water Conservation and Reuse, 2001-2002.
		Selected Awards:
		U.S. Department of Interior, Bureau of Reclamation. "Financial Incentives to Encourage Agricultural Water
		Conservation." \$749.000, 1994-2000.
		Selected Publications:
		"Measuring the Costs of Reallocating Water from Agriculture: A Multi-Model Approach." With David Zilberman,
		Richard Howitt, Ariel Dinar and Neal MacDougall. Natural Resources Modeling (Summer 2002): 201-224.
		Selected reports:
		Water Pricing and Water Use Efficiency. January 2001.
		Selected testimony:
		"Economic Observations on Water Infrastructure Investment in California." Subcommittee on Water and
		Power, U.S. House of Representatives Resources Committee. July 2001.
		"Economic Impacts of Reduced Water Supplies on Westside Agriculture." Bay-Delta Advisory Cmte. June 1998.
		"Economic Impacts of the Central Valley Project Improvement Act." Subcommittee on Water and Power, U.S.
		House of Representatives Resources Committee. April 1998.
		"Benefits and Costs of Enhanced Flood Protection in the American River Valley." U.S. House of
		Representatives Transportation Committee. February 1996.
		"Least-Cost Implementation of Bay/Delta Water Quality Standards." CA WRCB. July 1994.
		"The Potential for Agricultural Water Conservation." California Water Resources Control Board. June 1992.
		"Economic Impacts of the Central Valley Project Improvement Act." U.S. Senate Energy and Natural Resources
		Committee. April 1992.
		http://are.Berkeley.EDU/~sunding/
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Dennis	CSU Fresno	Appears to have expertise in irrigation
Dennis Wichelns	CSU Fresno Agricultural Economics Faculty Member	 Appears to have expertise in irrigation, Wichelns, D. "Economic Issues Regarding Tertiary Canal Improvement Programs, With an Example From Egypt." Irrigation and Drainage Systems. 12(3):227-251. AUgust 1998. Kline, Jeffrey D. and Denis Wichelns. "Measuring Heterogeneous Preferences for Preserving Farmland and Open Space." Ecological Economics. 26(2):211-224. 1998. "Water Management Principles for Drainage Reduction and a Case Study of the Broadview Water District." James E.Ayars, Dennis Wichelns, and David M.Cone. AGROECOSYSTEMS and the ENVIRONMENT: Sources, Control, and Remediation of Potentially Toxic, Trace Element Oxyanions Edited by Lynn M.Dudley and John C.Guitjens Kline, Jeffrey D. and Dennis Wichelns. "Public Preferences Regarding the Goals of Farmland Preservation Programs: Reply." Land Economics. 74(4):566-569. November 1998. "Economic Issues Regarding Irrigation Developments in Southern Egypt and on the Sinai Peninsula." Dennis Wichelns, Water International, vol.28, No.11, March 2003 Selected conferencepresentations: "Game Theory Analysis of Competition for Groundwater Involving El Paso, Texas and Ciudad Juarez, Mexico." Megumi Nakao, Dennis Wichelns, and John Montgomery. May 15, 2002. Presented at 2002 Annual Meeting of the American Agricultural Economics Association, Long Beach, California, July 28-31, 2002. "Estimating the Costs of District and Farm-Level Efforts to Achieve Selenium Load Targets," Dennis Wichelns, David Cone, Shannon Fretwell, Kristen Ward, US Committee On Irrigation and Drainage. Final Program, 14th Technical Conference on Irrigation, Drainage and Flood Control, June 3-6, 1998. "Empirical Evidence of Public Preferences for Farmland Preservation." Jeffrey Kline and Dennis Wichelns. Presented at the Environmental Enhancement Through Agriculture conference, November 15-17, 1995, Tufts University. Http://forages.orst.edu/people/people.cfm?Peop
Robert Young	Colorado State University, Dept. of Agricultural Economics (retired)	Not on CSU faculty website

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Dr. David	UC Berkeley,	(Ph.D., University of California, Berkeley, 1979). Environmental policy, water, pest control, climate change,
Zilberman	Envi.& Resource	environmental risks and technologies.
	Econ & Policy,	PROFESSIONAL EXPERIENCE
	Dept of Agric& Resource Econ	1994- Chair, Agricultural and Resource Economics, University of California at Berkeley; Director, Center for Sustainable Resource Development.
		 1989-1994 Vice Chairman, Agricultural and Resource Economics, University of California at Berkeley. 1987- Professor of Agricultural and Resource Economics and Agricultural and Resource Economist in the Agricultural Experiment Station, University of California at Berkeley.
		1983-1987 Associate Professor of Agricultural and Resource Economics and Associate Agricultural and Resource Economist in the Agricultural Experiment Station, University of California at Berkeley.
		1979-1983 Assistant Professor of Agricultural and Resource Economics and Assistant Agricultural and Resource Economist in the Agricultural Experiment Station, University of California at Berkeley.
		AWARDS
		 American Agricultural Economics Association Honorable Mention, Quality of Research Discovery Award (1984) for "Stochastic Structure, Farm Size, and Technology Adoption in Developing Agriculture." Western Agricultural Economics Association, Outstanding Published Research in Agricultural Economics Award (1984) for "Estimation of Multi-Crop Production Functions."
		 American Agricultural Economics Association Honorable Mention, Quality of Research Discovery Award (1990) for "Input Allocation in Multicrop Systems."
		Fellow, American Agricultural Economics Associations, August 1998.
		 American Agricultural Economics Association, Quality of Research Discovery Award (2002) for Agricultural Economics RESEARCH INTERESTS
		Agricultural and Nutrition Policy; Economics of Technological Change; Economics of Natural Resources; Microeconomic Theory.
		http://are.Berkeley.EDU/~zilber/

	ORGANIZATIONAL / BEHAVIORAL DYNAMICS		
Dr. Jan	Director,	20 years of experience in public utility regulation.	
Dr. Jan Beecher	Director, Institute for Public Utilities, Michigan		
		For a list of her publications, see: http://www.homestead.com/beecherpolicy/Research.html	

Brock Bernstein	Independent Consultant, Monitoring and evaluation of programs and projects	Ph.D. Biological Oceanography, Scripps Institution of Oceanography - 1977 Professional History Independent Consultant, 1998 to present President, National Fisheries Conservation Center, 1997 to present Member, Marine Board, National Research Council, 1994 to 1997 Member, Board of Directors of Dynatest, Inc., an international engineering firm, 1994 to 1996 Vice President and Founding Partner, EcoAnalysis, 1984 to 1997 Senior Project Manager, Welsford Research Group, 1981-83 Research Associate, Dalhousie University, 1982-83 Principal Investigator, Marine Ecological Consultants, 1979-81 Killam Postdoctoral Fellow, Dalhousie University, 1977-79 Qualifications
		Dr. Bernstein is an environmental scientist with broad experience in designing and evaluating environmental programs, structuring management and research programs, and developing policy. He has performed field research in a range of coastal and oceanic environments. He has also worked on a wide variety of management and policy issues, including the redesign of core compliance monitoring programs for major regional management efforts, the evaluation and/or development of regional assessment programs, and methods to improve fisheries management. His experience has led to his appointment to many technical advisory and review committees, including several National Academy of Sciences panels. One panel recommended improvements in marine monitoring nationwide and another examined alternatives for improving the governance and management systems used to manage coastal and ocean resources. Dr. Bernstein's scientific background and interpersonal skills have contributed to his ability both to help resolve difficult environmental and management issues involving groups of varied stakeholders and to develop creative solutions to important problems in environmental management. During the National Academy study of monitoring, he constructed a technical framework for the effective design of marine monitoring programs. He has also created a set of planning tools to facilitate the development of scientific and management monitoring objectives for regional monitoring programs. Over the last few years, he has facilitated and/or mediated a broad range of information sharing, conflict resolution, planning, and problem-solving efforts.

Daniel	UC-Santa Cruz,	Press's core interests bring together democratic theory, policy analysis, and environmental political thought. He		
Press	Associate	draws upon these fields to explore one of the critical challenges of our time: how and whether modern		
	Professor of	democracies-with their commitments to economic growth, incrementalism, and compromise-will address complex		
	Environmental	environmental problems in effective, timely, and fair ways. Press has explored these questions in field studies of		
	Studies	the old-growth forest debates as well as toxics management in California. Press's focus on democracy and the		
	Coholder,	environment has also become part of an inquiry into the politics of environmental regionalism. This research		
	Pepper-	reveals that popular proposals to regionalize environmental policy tend to neglect fundamental trade-offs between		
	Gibberson Chair	administrative efficiency and effectiveness and democratic participation and self-transformation. More recently,		
	in Environmental	Press has begun an analysis of open-space preservation in California that compares local efforts (at the city,		
	Studies	county, special district levels) to acquire parks and open spaces throughout the state.		
	Former	Prior to his professorship at UCSC, Dr. Press was a Senior Analyst for the EPICS International, an		
	viticulturist	environmental, health and safety management and compliance consulting company. Dr. Press has authored		
		several articles relating to water and environmental studies, including Developing Hazardous Waste Capacity and		
		The Greening of Industry: Achievements and Potential. He is a member of the Board of Directors of the Open		
		Space Alliance.		
		His focus is mostly on open space issues in California, sprawl, and land use. However, he is a Member of the		
		Central Coast Regional Water Quality Control Board.		
		http://zzyx.ucsc.edu/ES/fac-staf/pressarea.html		
	CROSS-CATEGORY			
Mike Hollis	MWD of	Director, Measurement and Evaluation, Conservation Branch, Metropolitan Water District of Southern California.		
	Southern	Responsible for designing, conducting and monitoring studies involving the measurement, verification and		
	California	evaluation of water conservation programs, activities and related interventions. Currently a member of the		
		California Urban Water Conservation Council's (CUWCC) Measurement and Evaluation Committee and		
		chairperson of CUWCC's pilot study of water savings attributable to commercial ultra-low flush toilet.		
		http://www.ipmvp.org/committee/ipmvp-water-arc/msg00037.html		